

FLOOD HAZARD - DISTRICT 1

STATE PLAN

Goal 3: Mitigate the potential loss of life and property from flooding.

Objective 3.1: Increase the public awareness of flood mitigation.

Objective 3.2: Reduce the number of current and future structures in the floodplain.

Objective 3.3: Prevent flooding of structures and infrastructure from inadequate storm drainage and poorly designed irrigation waterways.

Objective 3.4: Provide adequate warning of flooding events.

Objective 3.5: Improve the effectiveness of flood insurance programs.

Objective 3.6: Reduce the risk of dam or levee failure.

COUNTY	MITIGATION PROJECT	PRIORITY
Deer Lodge	Clear debris from around old bridges.	M
Deer Lodge	Relocate and upgrade culverts on Morrel Road from the Old Opportunity landfill to Gas City Road.	M
Deer Lodge	Replace bridge in Galen.	M
Deer Lodge	Implement security measures at the dams.	M
Deer Lodge	Install culverts and raise roadbed on North Fork Road off the Big Hole Highway from Bacon's Home Ranch to the county line.	M
Deer Lodge	Upgrade and maintain storm drains from Fourth Street to the smelter.	M
Deer Lodge	Mitigate damages to critical facilities in the 100-year floodplain.	M
Deer Lodge	Prevent flood contamination of well houses serving the Anaconda public water system.	M
Deer Lodge	Educate the public on flood insurance.	M
Deer Lodge	Install storm drains in areas where they are lacking in the west end of Anaconda.	M
Deer Lodge	Install backflow prevention systems from the Anaconda waste water facility.	M

FLOOD HAZARD - DISTRICT 1

STATE PLAN

Goal 3: Mitigate the potential loss of life and property from flooding.

Objective 3.1: Increase the public awareness of flood mitigation.

Objective 3.2: Reduce the number of current and future structures in the floodplain.

Objective 3.3: Prevent flooding of structures and infrastructure from inadequate storm drainage and poorly designed irrigation waterways.

Objective 3.4: Provide adequate warning of flooding events.

Objective 3.5: Improve the effectiveness of flood insurance programs.

Objective 3.6: Reduce the risk of dam or levee failure.

COUNTY	MITIGATION PROJECT	PRIORITY
Flathead	Perform streambank restoration.	NA
Flathead	Create flood resistant landscape guidelines.	NA
Flathead	Install backflow valves.	NA
Flathead	Install storm drains.	NA
Flathead	Elevate roadways (from Valley County plan).	NA
Flathead	Construct water retention basins.	NA
Flathead	Establish river warning systems.	NA
Flathead	Mapping of burn areas to be provided to NWS.	NA
Flathead	Snotel sights in place (6).	NA
Flathead	Real time automated river gauges (11 in place).	NA
Flathead	Make bridge improvements.	NA
Flathead	Removal of high hazard, inadequate flood control structures.	NA
Flathead	Provide flood insurance education.	NA

FLOOD HAZARD - DISTRICT 1

STATE PLAN

Goal 3: Mitigate the potential loss of life and property from flooding.

Objective 3.1: Increase the public awareness of flood mitigation.

Objective 3.2: Reduce the number of current and future structures in the floodplain.

Objective 3.3: Prevent flooding of structures and infrastructure from inadequate storm drainage and poorly designed irrigation waterways.

Objective 3.4: Provide adequate warning of flooding events.

Objective 3.5: Improve the effectiveness of flood insurance programs.

Objective 3.6: Reduce the risk of dam or levee failure.

COUNTY	MITIGATION PROJECT	PRIORITY
Flathead	Repair of dams or levees	NA
Flathead	Floodplain mapping of unmapped areas.	NA
Flathead	Outreach and technical assistance in joining CRS.	NA
Flathead	Updated floodplain mapping of mapped areas.	NA
Flathead	Dam failure alert systems.	NA
Flathead	Install culverts.	NA
Flathead	Create new driveway/private road bridge and culvert guidelines.	NA
Flathead Reservation	Replace deteriorated bridges on Little Bitterroot, Jocko, Flathead River and Boulder Creek to withstand heavy rain/melting snow.	M
Flathead Reservation	Institute communications system with local radio stations informing land owners of seasonal floods.	H
Flathead Reservation	GPS homes along Flathead and Little Bitterroot rivers.	H
Granite	Increase the capacity of the Sansome Street culvert in Philipsburg on Frost Creek.	M

FLOOD HAZARD - DISTRICT 1

STATE PLAN

Goal 3: Mitigate the potential loss of life and property from flooding.

Objective 3.1: Increase the public awareness of flood mitigation.

Objective 3.2: Reduce the number of current and future structures in the floodplain.

Objective 3.3: Prevent flooding of structures and infrastructure from inadequate storm drainage and poorly designed irrigation waterways.

Objective 3.4: Provide adequate warning of flooding events.

Objective 3.5: Improve the effectiveness of flood insurance programs.

Objective 3.6: Reduce the risk of dam or levee failure.

COUNTY	MITIGATION PROJECT	PRIORITY
Granite	Increase the capacity of the downtown Philipsburg storm drain for Camp Creek to prevent Broadway Street flooding.	M
Granite	Educate the public on flood insurance.	M
Granite	Increase the capacity of the culvert under Highway 10A in Drummond.	M
Lake	Institute communications system with local radio stations informing land owners of seasonal floods.	H
Lake	GPS homes along Flathead and Little Bitterroot River.	H
Lake	Replace deteriorated bridges on Little Bitterroot, Jocko, Flathead River and Boulder Creek to withstand heavy rain/melting snow.	M
Lincoln	Improve roads and road drainage to withstand flood flows in selected areas.	M
Lincoln	Complete engineering evaluation of additional flood control measures within 100-year flood plain in Libby and other identified flood prone areas.	M
Lincoln	Obtain and disseminate revised flood plain mapping to increase knowledge of flood prone areas.	M
Lincoln	Evaluate bridges and culverts at risk from flooding and develop schedule and funding to replace or upgrade as necessary.	M

FLOOD HAZARD - DISTRICT 1

STATE PLAN

Goal 3: Mitigate the potential loss of life and property from flooding.

Objective 3.1: Increase the public awareness of flood mitigation.

Objective 3.2: Reduce the number of current and future structures in the floodplain.

Objective 3.3: Prevent flooding of structures and infrastructure from inadequate storm drainage and poorly designed irrigation waterways.

Objective 3.4: Provide adequate warning of flooding events.

Objective 3.5: Improve the effectiveness of flood insurance programs.

Objective 3.6: Reduce the risk of dam or levee failure.

COUNTY	MITIGATION PROJECT	PRIORITY
Mineral	Build community sewer systems for subdivisions with septic systems located in the 100 year floodplain.	L
Mineral	Ensure water supplies are protected from bacterial contamination after flooding events.	M
Mineral	More detailed floodplain delineation in areas of frequent flooding (St. Regis).	M
Mineral	Debris removal from culverts in developed areas.	M
Mineral	Training of local officials to effectively coordinate evacuations.	M
Missoula	Improve the dike system along the Bitterroot River near Lolo.	M
Missoula	Complete structural analysis of bridges in County that have a low scour potential index.	M
Missoula	Construction of Grant Creek Flood Control and Restoration Project.	H
Missoula	Require all floodplain modeling projects to analyze February/March runoff and spring runoff event.	M
Missoula	Require floodplain modeling for all subdivisions in unmapped drainages.	M
Missoula	Adopt regulations enforcing no-build zones in floodplains and flood prone zones.	H

FLOOD HAZARD - DISTRICT 1

STATE PLAN

Goal 3: Mitigate the potential loss of life and property from flooding.

Objective 3.1: Increase the public awareness of flood mitigation.

Objective 3.2: Reduce the number of current and future structures in the floodplain.

Objective 3.3: Prevent flooding of structures and infrastructure from inadequate storm drainage and poorly designed irrigation waterways.

Objective 3.4: Provide adequate warning of flooding events.

Objective 3.5: Improve the effectiveness of flood insurance programs.

Objective 3.6: Reduce the risk of dam or levee failure.

COUNTY	MITIGATION PROJECT	PRIORITY
Missoula	Assess feasibility of explosives for breaking up ice jams.	M
Missoula	Identify critical access bridges and evaluate potential for damage from debris.	M
Missoula	Improve dike system along the Clark Fork River near 3rd and Tower Street.	M
Missoula	Revise subdivision regulations to assess groundwater flooding potential.	M
Powell	Reshape and provide drainage structures on Bismark Hill Road to prevent water from running down the road and cause flooding along Taylor Creek.	M
Powell	Construct a flood channel around the City of Deer Lodge to accommodate 200-250 cfs of flood flow.	H
Powell	Facilitate funding for the State of Montana to replace the Main Street bridge.	H
Powell	Acquire 6-8 structures to accommodate the Cottonwood Creek channel expansion.	H
Powell	Replace nine County bridges which have a hydraulic sufficiency rating of 4 or less.	M

FLOOD HAZARD - DISTRICT 1

STATE PLAN

Goal 3: Mitigate the potential loss of life and property from flooding.

Objective 3.1: Increase the public awareness of flood mitigation.

Objective 3.2: Reduce the number of current and future structures in the floodplain.

Objective 3.3: Prevent flooding of structures and infrastructure from inadequate storm drainage and poorly designed irrigation waterways.

Objective 3.4: Provide adequate warning of flooding events.

Objective 3.5: Improve the effectiveness of flood insurance programs.

Objective 3.6: Reduce the risk of dam or levee failure.

COUNTY	MITIGATION PROJECT	PRIORITY
Powell	Reconstruct East Side Road and install adequate cross drain structures.	M
Powell	Expand particular portions of the Cottonwood Creek channel to accommodate a flow of 950 cfs.	H
Powell	Construct a debris basin and water control structure to route the appropriate amount of flood water down Cottonwood Creek and down the flood channel around the City of Deer Lodge.	H
Powell	Replace two bridges on Cottonwood Creek with structures having a capacity of 950 CFS.	H
Ravalli	Modify subdivision regulations to require floodplain modeling for all new subdivisions in unmapped drainages.	M
Ravalli	Complete floodplain/flood prone area delineation on all urban/developed streams.	H
Ravalli	Revise probably maximum flood projections for Painted Rocks and Lake Como based on enhanced digital elevation models and improved flood modeling software.	M
Ravalli	Identify critical access bridges and evaluate potential for damage from debris.	H
Ravalli	Complete structural analysis of bridges in County that have a low scour potential index.	M

FLOOD HAZARD - DISTRICT 1

STATE PLAN

Goal 3: Mitigate the potential loss of life and property from flooding.

Objective 3.1: Increase the public awareness of flood mitigation.

Objective 3.2: Reduce the number of current and future structures in the floodplain.

Objective 3.3: Prevent flooding of structures and infrastructure from inadequate storm drainage and poorly designed irrigation waterways.

Objective 3.4: Provide adequate warning of flooding events.

Objective 3.5: Improve the effectiveness of flood insurance programs.

Objective 3.6: Reduce the risk of dam or levee failure.

COUNTY	MITIGATION PROJECT	PRIORITY
Ravalli	Revise subdivision regulations to assess groundwater flooding potential.	M
Ravalli	Require all floodplain modeling projects to analyze February/March runoff and spring runoff events.	M
Sanders	GPS homes along Flathead and Clark Fork River.	H
Sanders	Institute communications system with local radio stations informing land owners of seasonal floods.	H
Silver Bow	Install culverts in areas where water runoff is needed.	M
Silver Bow	Increase stormwater systems in poor drainage areas.	M
Silver Bow	Educate the public on flood insurance.	M
Silver Bow	Educate builders on building specifications and floodplain building requirements.	M